CueSystem

TCP/IP

User Manual

Straight forward thinking

Manufactured in the UK by Global Design Solutions
www.gds.uk.cominfo@gds.uk.com
Telephone: +44 (0)117 325 0063

Contents

CHAPTER 1 Introduction 5

Features 5
Hardware overview 6
PC requirements 6
Operational overview 7
Red light operation 7
Green light operation 7
Preset operation 7

CHAPTER 2 Installation and set up 8

Installing hardware 8
Installing the software 8
Configuring the PC's IP address 9
Starting the software and connecting to the network 10
Patching 12

CHAPTER 3 Patching 13

Overview of the Patch screen 13
How devices and channels are displayed 14
How network connections are shown 14
Minimising devices 14
Other features of the Patch screen 15
Patching procedure 15

CHAPTER 4 Programming cues 17

Adding desks 17
Editing desks 18
Deleting desks 18
Cue light states 18
Full screen mode 19
Minimising desks 19
Creating cues 20

CHAPTER 5 Playing back cues 21

Playback using the CueSystem TCP/IP software 21
Previewing cues 22
Running cues 22
Playback using a playback controller 23
Connecting a playback controller to the system 23
Adding a cue list onto a playback controller 24

Using a playback controller 24

CHAPTER 6 Show files 25

Creating a new show 25
Saving show files 25
Opening show files 26

CHAPTER 7 Hardware configuration 27

Desk configuration 27
I/O node configuration 28
Playback controller configuration 29
Advanced settings 29
Advanced Configuration 29
System Network Configuration 31
Software Update 32
Restoring factory settings 32

CHAPTER 8 User preferences 33

Controller options 33
User options 34

CHAPTER 9 Advanced features 36

RS-232 control protocol 36
Physical connection 36
Serial settings 36
Protocol 36
Command examples 37
Received commands 37
Firmware upgrade (‘software update’) 37
Factory reset 38

CHAPTER 1 Introduction

The GDS CueSystem provides for simple reliable cue light control for theatres, conference areas, and any venue that requires a cue light system.

CueSystem TCP/IP is a deployment of CueSystem that allows all hardware to be integrated seamlessly into a TCP/IP network. The CueSystem TCP/IP system offers total flexibility in terms of patching and configuration on standard networks.

The CueSystem TCP/IP controllers run on a standard TCP/IP network and use the TCP/IP 4 and 12way output nodes with standard or large GDS outstations to complete the system. The controllers come in 4, 8 and 12way as standard, desk or rack mount with larger versions available to order.

The CueSystem TCP/IP cue light system consists of five main parts:

Desks	Provide the physical button inputs to control the outstations. Only one master controller desk is allowed in any one hardware configuration.
I/O Nodes	Provide either 4 or 12 outputs to connect to the outstations.
Outstations	Remote cue light indicators provide feedback to the desk.
PC application	Used for managing CueSystem options and patching. Also used for advanced show control and cue lists. The PC is used for initial configuration of the system. Once the system is configured and a show file created, however, a playback controller could be used instead of a PC for playing back show files.
Playback controller	(Optional) Provides show control of pre-programmed cue list. Also allows for simple editing of existing cues.

Features

- Ethernet connectivity
- Simple web page configuration of I/O nodes and controllers
- Simple firmware upgrade to keep your system up to date
- Series operation: the controller only lights if the outstation does
- Single preset mastering and cancel options for all channels
- Configurable user options – to change logic behaviour
- Left and right hand mastering for all controllers over four channels
- Multi voltage IEC mains input
- Robust carry handle (desk version)
- RS-232 port for interfacing to AMX or Crestron control systems

Hardware overview

PC requirements

The following is the minimum specification required for a PC to run the CueSystem TCP/IP software application, which is used to initially configure the system, and for subsequent control of operational behaviour if required.

- Operating system Windows XP, Windows Vista, Windows 7
- Processor 500MHz
- RAM 512MB
- Free disk space 100MB + show file storage
- Video resolution 1024 x 768
- Software Microsoft .NET framework 3.5 (installer will download if not installed)

8-way desk

4-way I/O node

12-way I/O node

Standard outstation

Playback controller

Operational overview

CueSystem TCP/IP allows for the control via your IP network of red and green lights, positioned remotely.

The following provides an overview of how the cue lights can be used manually in practice, during a live show. However, the CueSystem TCP/IP system allows you to program automatic cues.

Red light operation

- Push the red channel button on the desk. The red light flashes at the desk and on the outstation.
- Push the red channel button again the red light goes off.

You can choose the flashing speed in the User Options window (see page 34).

- While the red light is flashing, push the **Acknowledge** button on the outstation. The red light becomes steady on.
- Push the red channel button on the desk. The red light goes off.

The master cancel buttons, found on each end of the desk, turn off any active red lights.

Green light operation

- Push the green channel button on the desk. The green light is turned on at the desk and on the outstation.
- Push the green channel button again. The green light goes off.

There are various other settings to control the behaviour of cue lights according to your own personal preferences, such as enabling/disabling 'lose red on go'. These can be configured in the User Options window (see page 34).

The master cancel buttons, found at each end of the desk, turn off any active green lights. This action cannot be undone.

Preset operation

- Push a preset channel button. The button is turned on. Any number of channels can be selected.
- Push one of the master **GO** buttons (found at either end of the desk). The respective green lights are turned on.
- Push one of the **PRESET CANCEL** buttons (found on either end of the desk). All preset lights are turned off.

There are preference settings for the Preset operation, in the User Options window (see page 34).

CHAPTER 2 Installation and setup

This section covers the following tasks, which are required in order to be able to set up CueSystem TCP/IP:

- Installing hardware
- Installing the software
- Configuring the PC's IP address
- Starting the software and connecting to the network
- Patching

Installing hardware

An overview of the various hardware devices that can be used with the CueSystem TCP/IP is provided on page 6.

To install the CueSystem hardware:

1. Plug the device into a power supply and switch on the device.
2. Connect a network cable between the device and your network.

CueSystem TCP/IP devices are pre-configured with static IP addresses as follows:

Desks	192.168.0.100
Playback controllers	192.168.0.105
4-way I/O Nodes	192.168.0.110
12-way I/O Nodes	192.168.0.120

All IP addresses must be unique. If you have multiple devices of the same type, e.g. two 4-way I/O nodes, the IP address of at least one of the units must be changed before you can use them together. Ensure the default addresses do not conflict with other devices on your IP network before you connect them. The default IP address of a device can be changed by typing the device's default IP address in the address bar of a web browser. See page 27 for further information on configuring hardware.

Installing the software

The CueSystem TCP/IP software application is required to be used initially to configure the system. Subsequently, the PC application may be used to control the operational behaviour and patching of the system, but CueSystem TCP/IP can also be used without the PC application.

Insert the CD ROM into your PC's CD ROM drive. If the PC does not open the disc automatically, browse to your CD ROM drive and open the folder. Double-click the `CueSystemVx.msi` file (where

x is the version number of the software).Follow the on screen instructions to complete the installation. You may need to download additional programs to complete the installation.

Upon installation, a CueSystem TCP/IP shortcut icon is added to your desktop.

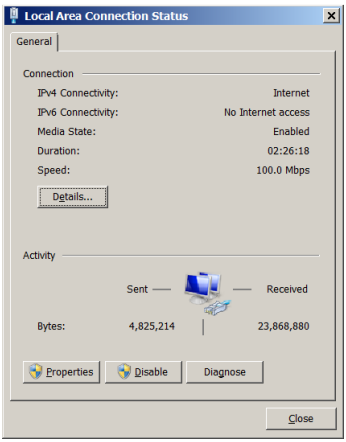
Configuring the PC's IP address

Connect your PC to the same IP network as the CueSystem TCP/IP hardware. In order to be able to communicate with the CueSystem TCP/IP hardware, your PC must be set to use a static IP address in the same IP range as CueSystem TCP/IP, which is 192.168.0.x.

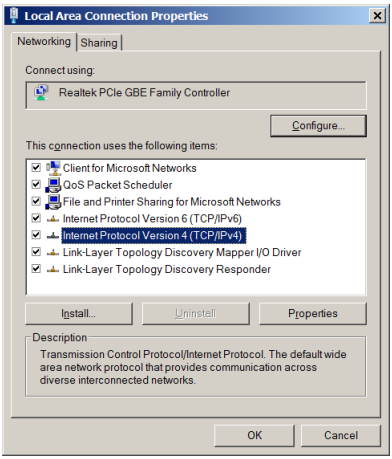
You need to set the static IP address on your PC to192.168.0.x (where x is a unique number within your network). If necessary, consult your network administrator in order to obtain a unique number. The static IP address is set (on Windows 7) in the Internet Protocol Version 4 (TCP/IPv4) Properties window. See the following procedure if you need instructions on how to do this.

1 In Control Panel, click Open Network and Sharing Center.

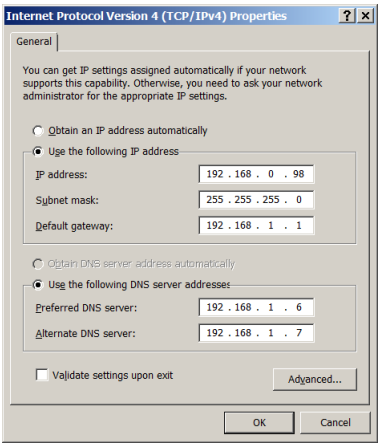
2 Click the Local Area Connection link. The Local Area Connection Status window opens.



3 Click the Properties button. The Local Area Connection Properties window opens.



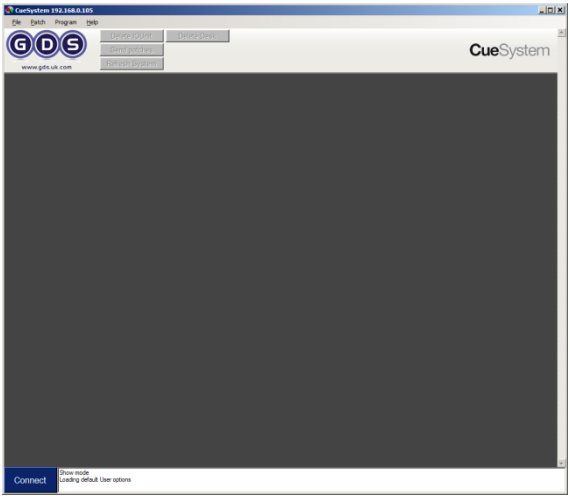
4 Select the Internet Protocol Version 4 (TCP/IPv4) item from the list, then click the Properties button. The Internet Protocol Version 4 (TCP/IPv4) Properties window opens.



5 Click the 'Use the following IP address' radio button, then specify the IP address in the field below. Click OK to save changes, then close all the various other windows you opened to get to this window.

Starting the software and connecting to the network

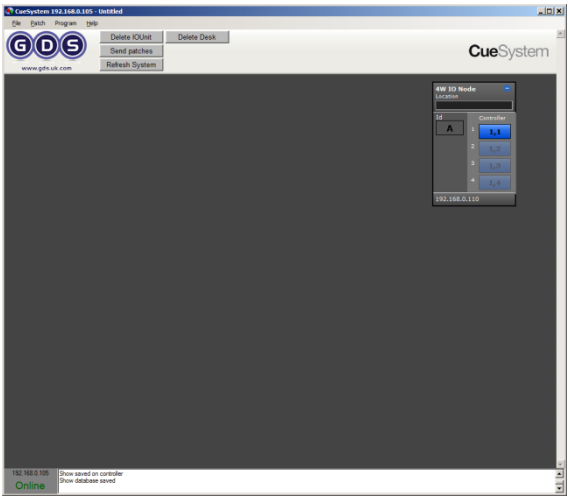
1 Double-click the CueSystem icon on your desktop. The CueSystem TCP/IP software application opens. The software is pre-configured to connect to the desk at IP address 192.168.0.100.



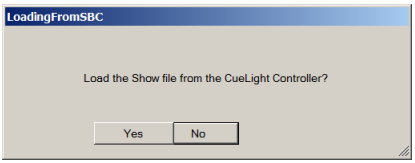
Tip: To set start-up preferences, choose options in Controller Options settings (see page 33). For example, you can make CueSystem TCP/IP start by automatically connecting to the networked hardware, and automatically load the last saved show. You can make CueSystem TCP/IP start in Live Cues, Edit Cues or Patch mode.

Note: Your Windows display settings must be set to use text at 100% size in order for the CueSystem TCP/IP software to display correctly. To set this, go to **Control Panel > Display**, then select the **Smaller – 100%** text option.

2 Click on the bottom-left area of the window on "**Connect**" (in blue).The application attempts to make a connection to the controller. If connection is successful this label is changed to "**Online**" (in green). Any I/O nodes that are connected to the network are displayed as a box on the right-hand side.



3 You are now prompted to load the show file from the controller. All CueSystem TCP/IP hardware is shipped with a demo show. Click **Yes** to load the demo show from the controller. This will allow you to familiarise yourself with the system. In future sessions, you will still see this prompt, but the show file on the controller will be the last one saved in the CueSystem TCP/IP database, rather than the demo show.



Patching

Your hardware configuration must be patched before it can be used. Patching means assigning desk channels to I/O units. The Patching window in the CueSystem TCP/IP software is used. Refer to 'Patching' on page 13 for instructions. Once patching has been done, the system can be used manually without further configuration.

CHAPTER 3 Patching

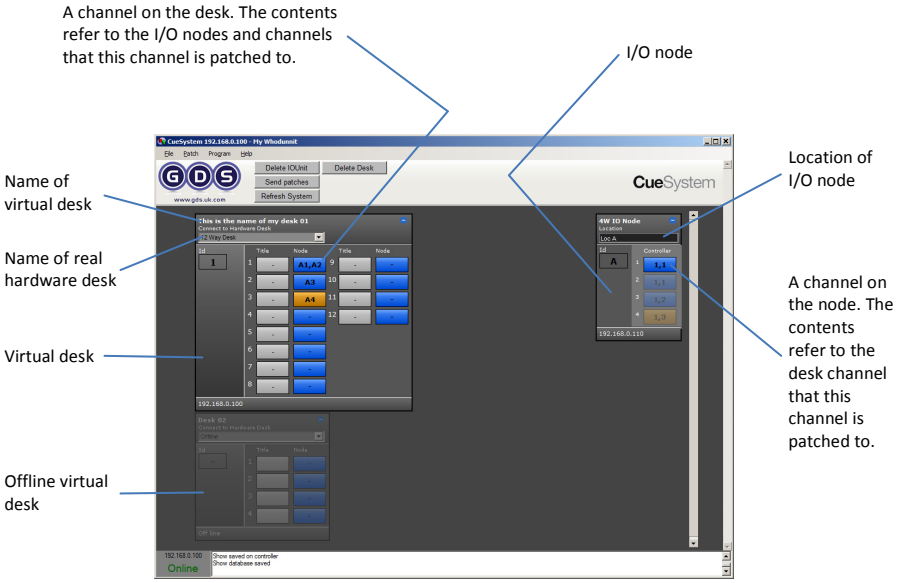
Patching is the first main task (you need to add at least one desk in the Cue Editing screen first) when you use the CueSystem TCP/IP software or a new hardware configuration for the first time. Each hardware configuration must be patched before it can be used.

Patching is the process of assigning desk channels to I/O units. One channel can be patched to multiple channels on an I/O unit, or even multiple I/O units if required. Once patching has been done, the system can be used manually without further configuration.

The Patch screen in the CueSystem TCP/IP software is used to perform patching. Click the **Patch** menu item to open the Patch screen.

Overview of the Patch screen

This section describes the features of the Patch screen. It is recommended that you familiarise yourself with these before you create your channel patching (see 'Patching procedure' below).



How devices and channels are displayed

Desks are shown on the left and I/O Nodes on the right. The desk graphics (the boxes) shown on the Patch screen do not represent physical hardware: they are virtual desks to which you can assign programmed cues. The real hardware desk is denoted by the name of the item you choose from the drop-down list under the label 'Connect to Hardware Desk' at the top of the desk box.

Channels on both desks and I/O nodes are represented by the blue boxes. Each patched channel box contains one or more alphanumeric codes which describe which channels are patched to each other. A channel that is not patched is indicated by a dash in its box.

Names of the various devices are set as follows:

- Names of real hardware devices are set in the device's configuration page that you access in a web browser (see 'Hardware configuration' on page 27).
- Names of virtual desks are set in the Cue Editing screen.
- Names of I/O nodes are set in the device's configuration page that you access in a web browser (see 'Hardware configuration' on page 27). Names of locations of I/O nodes are set in the black box on the I/O node graphic. To rename an I/O node's location, type in the black box, then press Return.

How network connections are shown

You may have several virtual desks and several hardware desks available. But if there is more than one I/O node physically connected to the network, these are shown in the Patch screen automatically.

If a desk or I/O node is shown dimmed, it means the device is not currently connected to the network, or both. That is:

- the real desk is offline (select a real hardware desk from the drop-down list)
- the CueSystem TCP/IP software is not connected to the network (click **Connect** in the bottom-left corner of the screen to connect to your hardware)

If neither of these work, check your network connections are working properly.

All the channels on a connected *desk* are shown in high contrast because they are all available to be patched. However, if a channel's box on an *I/O node* is **dimmed** it means that channel is not physically connected to an outstation.

Note: Cue lights for a given patch (a desk channel patched to one or more I/O node channels) can only be lit if *all* of the outstations involved in that patch are physically connected to the respective channel on the desk. For example, if you patch one desk channel to two different I/O node channels – one that is physically connected and the other that is not – neither the connected not the unconnected outstation can be lit by the desk. Both outstations must be connected. This helps to ensure that cue delivery is reliable and robust.

Minimising devices

To make the Patch screen less cluttered, you can minimise (compact) the graphics for desks and I/O nodes so that you see only the name and type of the device. This is useful, for example, when offline devices are taking up too much room on the screen, and you only want to see the connected devices. To minimise a device, click the icon in the top-right corner of the device's box.

Other features of the Patch screen

Click **Refresh System** to request a database refresh. This is used for two purposes:

- To refresh the CueSystem TCP/IP software when you change the connected hardware in your configuration, to read the new hardware configuration so that it appears in the software.
- To discard any patch information changes that have not yet been sent (by clicking **Send Patches**).

Click **Delete I/O Unit** to delete database records of real hardware I/O units that are no longer required (and are not currently connected). A window opens in which you can choose the I/O unit to delete.

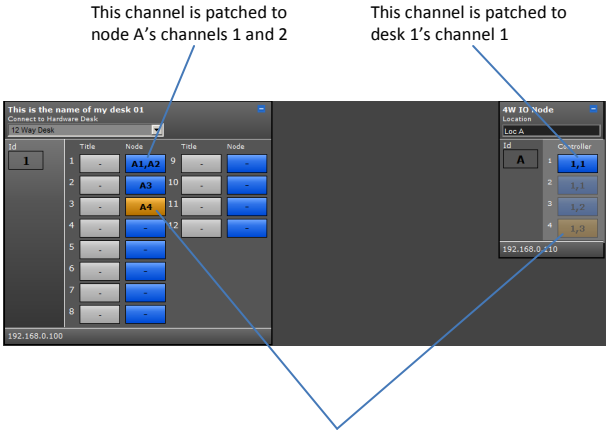
Click **Delete Desk** to delete database records of real hardware desks that are no longer required (and are not currently connected). A window opens in which you can choose the desk to delete.

Patching procedure

1. If you do not see any virtual desks, create one or more (see 'Adding desks' on page 17).
2. Choose the virtual desk you want to patch.
3. Connect to the real hardware desk by choosing the name of the real hardware device from the drop-down list on that virtual desk (under the label 'Connect to Hardware Desk'). The virtual desk is now enabled (shown in high contrast) and is connected to a real hardware desk. The same connected desk is now also enabled in the Cue Editing screen. I/O nodes are automatically connected (if present).

Note: Even if you have defined a virtual desk to be, say, a 4-way desk, if the real hardware that you want to connect to is a 12-way desk, then you will select a 12-way desk from the drop-down list.

4. To name channels on the desk graphic, click on a channel's Title box, type a name for the channel, then press Return. A maximum of 10 characters is permitted. Repeat for other channels as required.
5. Click on one of the blue (channel) boxes on the desk. The box turns amber to indicate it has been selected.
6. Click one of the blue (channel) boxes on the I/O node. This box also turns amber and a pair of alphanumeric codes will appear in the two boxes. The code in the desk's channel box is the ID and channel number of the I/O node that the desk channel is patched to. The code in the I/O Node's channel box is the ID and channel number of the desk that the I/O node channel is patched to. The figure below illustrates how channels are patched and the patch codes that are used.



7 Repeat this process to patch other channels as required.

8 Removing channel patches is done in a similar way to assigning patches. Clicking repeatedly on a box toggles it between patched (a patch code is displayed in the box) and un-patched (a dash is displayed in the box). So to un-patch a channel, click the desk channel, then click the patched I/O node channel.

9 When you have finished patching, click **Send Patches** to send the patch configuration to the controller. A pop-up box will appear to inform you that any channels currently active will be cleared. Click **Yes** to send the new patch information. You are now ready to create your cues (see 'Programming cues' on page 17).

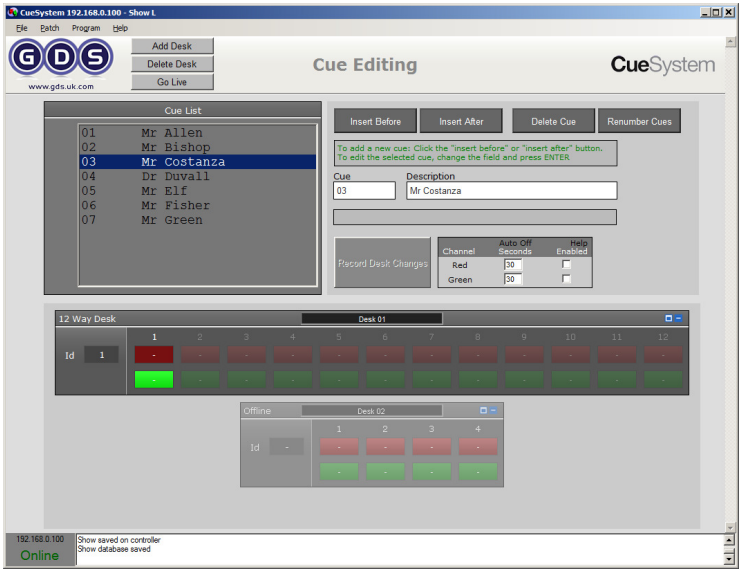
CHAPTER 4 Programming cues

Before you can program cues, you first need to patch your hardware (see page 13).

To program and review the cues in a show file, you use the Cue Editing screen. You can check your show by using the Up and Down arrows on your keyboard. As you select each cue, it is output live to the connected CueSystem TCP/IP hardware.

Click the **Program** menu item to go to the Cue Editing screen.

If you see the Live Cues screen instead of the Cue Editing screen, click **Go Edit**. The Live Cues screen is used to play back your programmed cues (see 'Playback using the CueSystem TCP/IP software' on page 21).



Adding desks

A new blank show contains no desks so you need to add one or more.

1. Click **Add Desk**. The Add Desk window opens.
2. Type a name for the desk (20 characters maximum).

3 Choose the number of channels that you wish to define for the desk (you do not need to choose 12 channels if you have a real 12-way desk; you might only want to use four of those channels).

4 Click **Add Desk** to create the desk. The desk is displayed in the Cue Editing screen.

5 Add further desks as required. All desks are also shown on the Patch screen.

The active desk (the desk currently connected to the networked hardware) is shown in full brightness. Other (offline) desks are shown dimmed. When you create a new desk for a new show it is shown dimmed because it has not yet been patched or connected to real hardware on your network. To patch the desk go to the Patch screen (see page 13).

Editing desks

To edit a desk's name:

1 Click in the black area that contains the name.

2 Edit the text then press Return.

Deleting desks

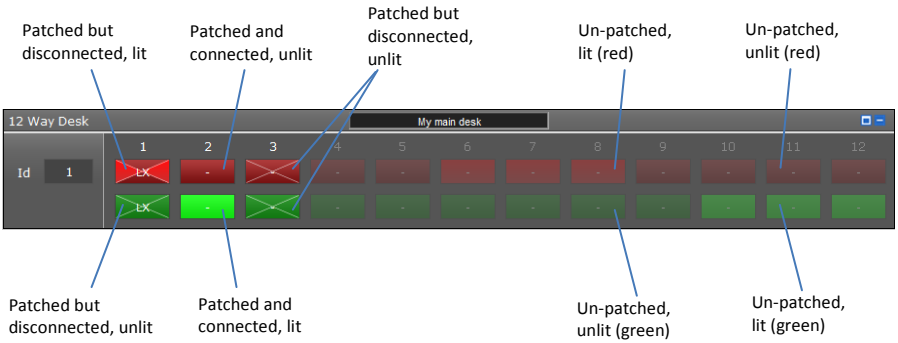
To delete a desk:

1 Click **Delete Desk**. The Delete Desk window opens.

2 Select the desk you want to delete then click **Delete**. The desk is deleted.

Cue light states

On an active (connected) desk, channels can have various states. These states are represented by drawing the boxes in the Cue Editing and Live Cues screens with different combinations of crosses, shadows and brightness of colour. The figure below shows how the various channel states are represented.



Convention:

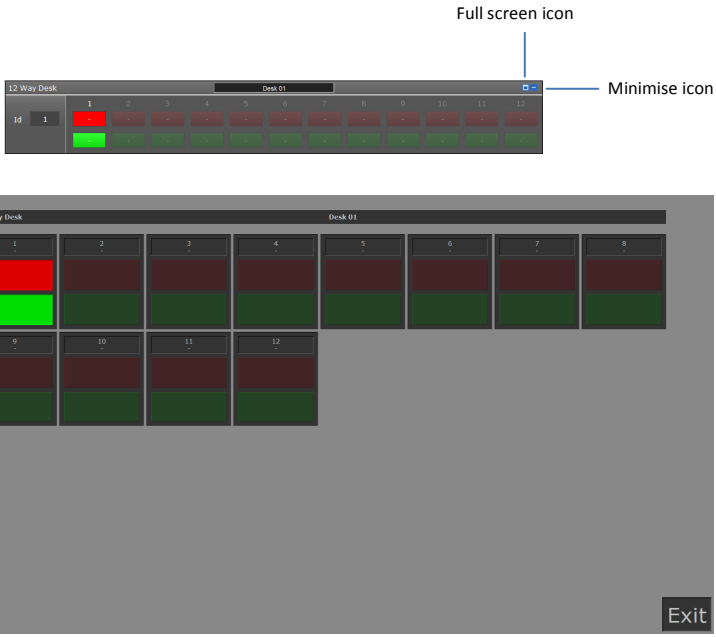
- Crossed box: channel is patched but disconnected.
- Shadowed box: channel is not ‘on’ (lit)
- Bright box with no shadow: channel is patched, connected and ‘on’ (lit)
- Very dimmed box: channel is un-patched

A disconnected channel is one that is not physically connected. In other words, there is no outstation physically connected to that channel on the I/O node.

An offline (not connected) desk uses just the ‘un-patched’ box representations.

Full screen mode

To view (and edit) a desk in full screen mode click the full screen icon in the top-right corner of the desk. The desk fills your PC screen, which makes viewing and editing cues even easier.



You can click on the red and green buttons in the usual way to turn them on or off.

To exit full screen mode click **Exit**.

Minimising desks

To make the Cue Editing screen less cluttered, you can minimise (compact) the graphics for desks so that you see only the name and type of the desk. This is useful; for example, if you wish to minimise some offline desks that are taking up too much room on the screen so that you only see the connected desks. To minimise a device, click the icon in the top-right corner of the desk.

Creating cues

1. When you start with a new blank cue list, the first cue number is already entered. Click in the description box to give the cue a name/description then press Return on your keyboard.

2. To add an additional cue, click **Insert After**. A second cue is inserted after cue 01.The cue number is incremented by 1.Type a description for cue 02 then press Return. After inserting a cue using the **Insert After** button, to add one or more additional cues quickly (descriptions only, and copying the last cue light definition) after the last cue, simply type the cue description then press Return. You can keep doing this to add further cues to the bottom of the list.

3. To insert a cue somewhere in the middle of the cue list, select the cue before then click **Insert After**, or select the cue before then click **Insert Before**.

   When you do this, the cue list numbering can become undesirable. For example, if you insert a cue between cues 01 and 02, the new cue has the number 01.50. To renumber the cue list, click **Renumber Cues**. Note that cue numbers are changed when you use this feature. In this example, the cues will now be numbered 1, 2, 3 (cue number 02 is changed to cue number 3). So do not use this feature if you wish to preserve cue numbers.

4. To define (or edit) a cue, select the desired cue, and do the following:

   - Type/edit the description: type in the Description box then press Return
   - Set the cue lights: click the red and green buttons to turn the channels on/off.
   - Optionally, specify a period of time before each cue light is turned off, in the Auto Off panel. For example, to specify Red to be turned off automatically after 10 seconds, type the value 10 in the Seconds box and tick the Enabled box.

   Note: When you click on a red or green channel box, if a cross is displayed in the box it means that channel is not physically connected.

   When you are happy with the cue you are currently defining, click **Record Desk Changes** to store the cue.

   Note: You must store changes to the current cue using this button, before moving to a different cue, otherwise you will lose the changes you have made to the current cue. Note also that the use of the **Record Desk Changes** button stores changes to computer memory only; not to disk. To store changes to disk so that you may use the changes for future sessions save the show: select **File > Save**.

5. To delete a cue, select it from the list then click **Delete Cue**.

Note: You are not prompted to confirm deleting a cue.

CHAPTER 5 Playing back cues

Before you can play back cues, you must have done the following:

- Add desks in the Cue Editing screen (see page 17)
- Patch desks to I/O nodes in the Patch screen (see page 13)
- Program the cues in the Cue Editing screen (see page 17)

There are two tools that you can use to play back cues:

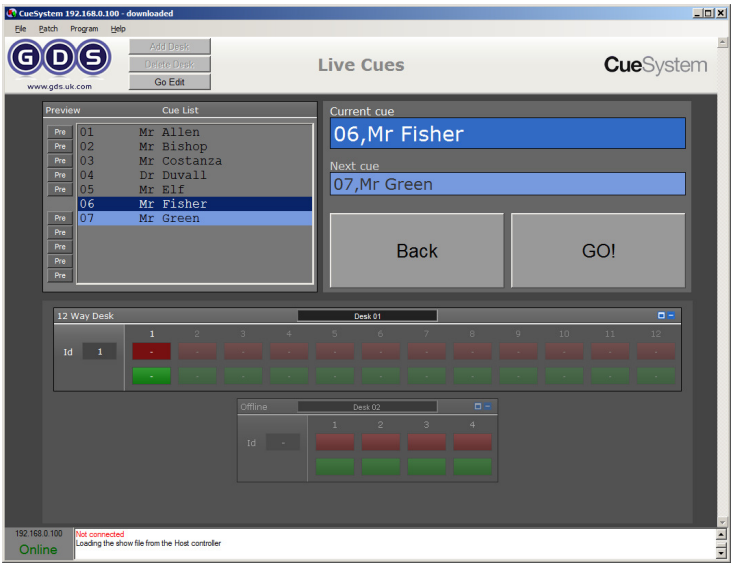
- the CueSystem TCP/IP software
- a playback controller device (see page 23)

In other words, it is not necessary to have a PC running the CueSystem TCP/IP software to play back cues. This has the advantage of keeping the hardware required for a live show simpler.

Playback using the CueSystem TCP/IP software

The Live Cues screen provides a clear and easy to use way to navigate and playback the cue list. To access Live Cues:

1. Click the Program menu item. The Cue Editing screen is shown.
2. Click **Go Live** at the top of the Cue Editing screen. The Live Cues screen is shown.



(To return to the Cue Editing screen, in the Live Cues screen click **Go Edit**.)

The current cue is shown in the Current Cue box and the next cue is shown in the Next Cue box. As you navigate the cue list, these boxes change accordingly to show the corresponding current and next cues. In the cue list, the cue shaded dark blue is the current cue and the cue shaded light blue is the next cue.

Previewing cues

Previewing a cue allows you to preview a cue temporarily without running it and then to return to the 'current' cue (the cue you were working with prior to the previewing command).

To preview a cue:

1. With the mouse, click and hold the **Pre** button next to the cue you want to preview. The cue with its associated cue lights is shown in the display.
2. Release the mouse button to return to the 'current' cue.

Running cues

To run the next cue in the cue list, do one of the following:

- Click **GO!**
- Press Spacebar on your keyboard

To run the previous cue in the cue list, do one of the following:

- Click **Back**
- Press Backspace on your keyboard

If you wish to prevent the use of the keyboard method of running cues (so that the **GO!** and **Back** must be used),in the Options window, on the Controller tab, tick the **Lock Keyboard** box.

Playback using a playback controller

A playback controller allows you to play back cues without the need for a PC running the CueSystem TCP/IP software. (However, before you can play back cues using a playback controller you need to transfer a cue list onto the playback controller using the software.) This section describes how to:

- connect a playback controller to the system
- add a cue list onto a playback controller using the CueSystem TCP/IP software
- use a playback controller– without the CueSystem TCP/IP software – to play back cues and navigate (preview) the cue list

Connecting a playback controller to the system

To do this you set all connected units (desks and all I/O nodes in your hardware configuration) and the CueSystem TCP/IP software to have the playback controller as their master controller. A detailed description of this procedure now follows.

To connect a playback controller:

1. Connect the playback controller to the network using a network cable.
2. Connect the playback controller to a power source and switch the playback controller on.
3. Go to the Desk Configuration utility by typing the desk's IP address (the default is 192.168.0.100) into the address bar of your web browser. (For full details on how to use this utility see page 27.)
4. Click **Change**.
5. To the question: 'Do you have a Playback unit?', answer '**Yes**' then provide the IP address of the playback controller (the default is 192.168.0.105).
6. Click **Submit Changes** and wait for the rebooting procedure to complete.
7. Go to the I/O Node Configuration utility by typing the I/O node's IP address (the default is 192.168.0.110for a 4 way node) into the address bar of your web browser. (For full details on how to use this utility see page 28.)
8. Click **Change**.
9. To the question: 'Do you have a Playback unit?', answer '**Yes**' then provide the IP address of the playback controller (the default is 192.168.0.105).
10. Click **Submit Changes** and wait for the rebooting procedure to complete.
11. In the CueSystem TCP/IP software, select **File > Options** to open the Options window. On the Controller tab, in the IP Address field, specify the IP address of the playback controller (the default is 192.168.0.105).
12. In the CueSystem TCP/IP software, on the Patch screen click **Refresh System**. The new device configuration is detected by the software and the devices are displayed accordingly.

Adding a cue list onto a playback controller

There are two ways to put cues onto a playback controller:

- manually edit cues in the Cue Editing screen of the CueSystem TCP/IP software
- open a show file from disk (**File > Open**)

Whatever changes you make in Cue Editing screen are automatically sent and saved to permanent memory onto the playback controller without the need for any user intervention.

To store a cue, in the Cue Editing screen, select a cue number, define the cue in the usual way (pressing the red and/or green buttons), then press **Record Desk Changes** (or press the red **Record** button on the playback controller, which also lights up when a cue is changed, prompting you to record it).

In Live Cues mode, you can step through the cues in the normal way using the CueSystem TCP/IP software. You can edit cues in Live Cues mode: for the current cue, define it then press the **Record** button on the playback controller to store the cue.

Using a playback controller

To play back the cue list on a playback controller:

- press the green **GO!** button to run the next cue
- press the red **BACK** button to run the previous cue

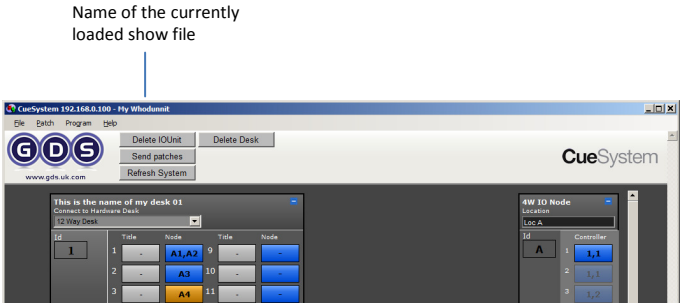
To navigate (preview) the cue list:

- press the single arrow up/down buttons to preview the cue 1 place in the cue list before/after the current cue
- press the double arrow up/down buttons to preview the cue 10 places in the cue list before/after the current cue

To run the current cue that you are previewing press **GO!** The cue is run and this new cue becomes the ‘current’ cue.

CHAPTER 6 Show files

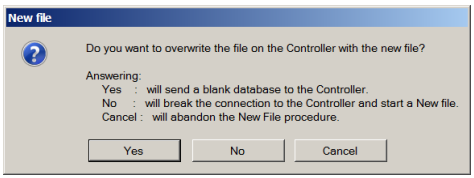
A show file consists of a configuration of cues, patching information and user options. The name of the currently loaded show file (stored on your hard disk) is displayed in the title bar of the CueSystem TCP/IP software. If you see the word 'downloaded' instead of the name of one of your show files, this means that the show file has been downloaded from the controller i.e. it is not one of your show files loaded from hard disk.



Creating a new show

To create a new show:

Select **File > New**. You are prompted to choose one of the following options:



- Create a new blank file in CueSystem TCP/IP and send it to the controller, overwriting the current file on the controller and maintaining the network connection.
- Create the new file offline, preserving the file on the controller and disconnecting the network connection.
- Cancel the new file creation.

Saving show files

To save a show file:

Select **File > Save**. The application saves the file locally and, if you chose to send the file to the controller when you created or opened the file, also to the controller.

To save a show file with a different name:

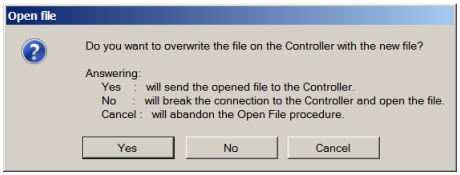
1. Select **File > Save As**.
2. Specify a new name for the file, then click **Save**. The application saves the file locally and, if connected to a controller the show file will also be saved to the controller.

Opening show files

To open a saved show stored on your hard disk, do one of the following:

- From within CueSystem TCP/IP, select **File > Open**. Locate the file you wish to open then click **Open**. Choose how to open the file (see below).
- From outside of CueSystem TCP/IP (e.g. in Windows Explorer or on your desktop), double-click the show file. CueSystem TCP/IP is launched. Choose how to open the file (see below).

You are prompted to choose how to open the file:



- Open the file in CueSystem TCP/IP and send it to the controller, overwriting the current file on the controller and maintaining the network connection.
- Open the file offline, preserving the file on the controller and disconnecting the network connection.
- Cancel the file opening.

To open the show file currently held on the controller:

Select **File > Open show on controller**. The application loads the show file from the host controller into the CueSystem TCP/IP application.

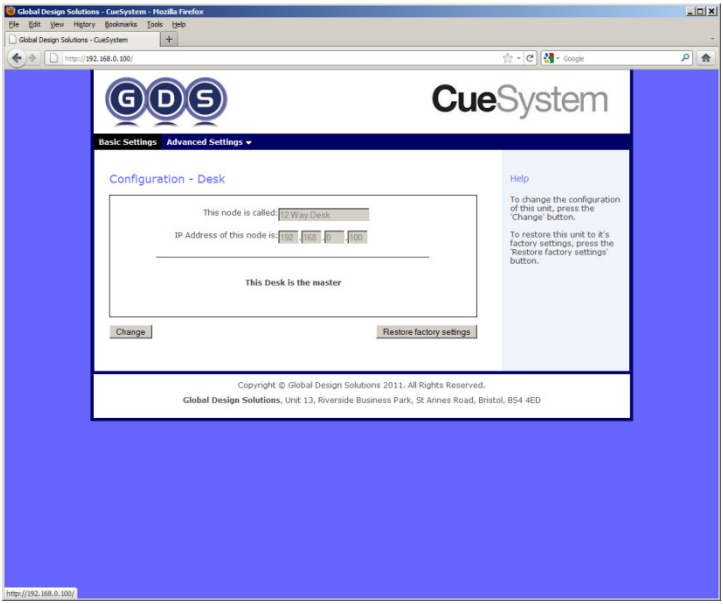
CHAPTER 7 Hardware configuration

This section describes how to configure desks, I/O nodes and playback controllers. Configuration is done in the respective configuration pages accessed by typing the IP address of the device into the address bar of a web browser.

The following sections describe the ‘Basic Settings’ windows of the desk, I/O node and playback controller configuration utilities. The ‘Advanced Settings’ windows are described on page 29.

Desk configuration

To configure a desk, type its IP address (the default is 192.168.0.100) into your web browser’s address bar then press Return. The ‘Configuration – Desk’ screen opens.



To modify the desk’s configuration (Basic Settings):

1. Click **Change**. The fields are un-greyed.
2. If required, you can edit the name of the device and its IP address.
3. If you wish to specify a different master controller device, answer the series of questions to specify which device is the master controller for the system and to provide the IP address of

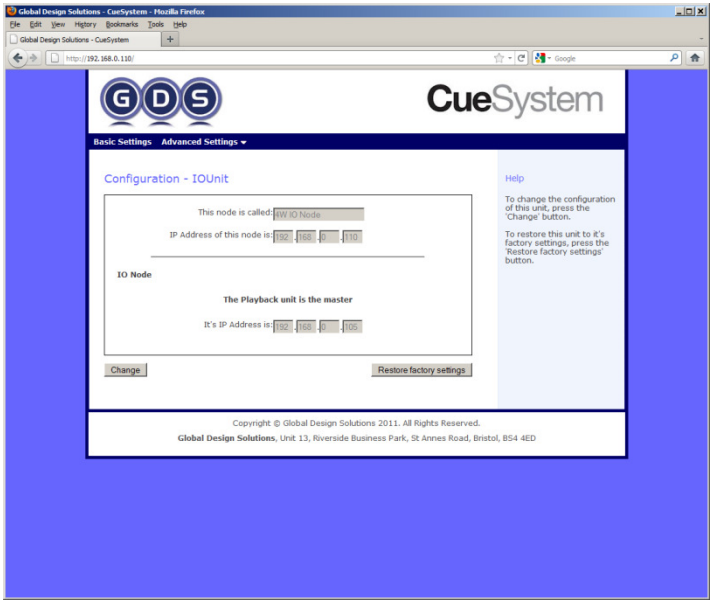
this master controller. The master controller can be a playback controller, the current desk you are configuring or another desk.

You can click a different answer to any question at any time if you make a mistake.

4 When you are happy with the configuration settings click **Submit Changes**.

I/O node configuration

To configure an I/O node, type its IP address (the default is 192.168.0.110 for a 4 way node) into your web browser's address bar then press Return. The 'Configuration – IOUnit' screen opens.



To modify the I/O node's configuration (Basic Settings):

1 Click **Change**. The fields are un-greyed.

2 If required, you can edit the name of the device and its IP address.

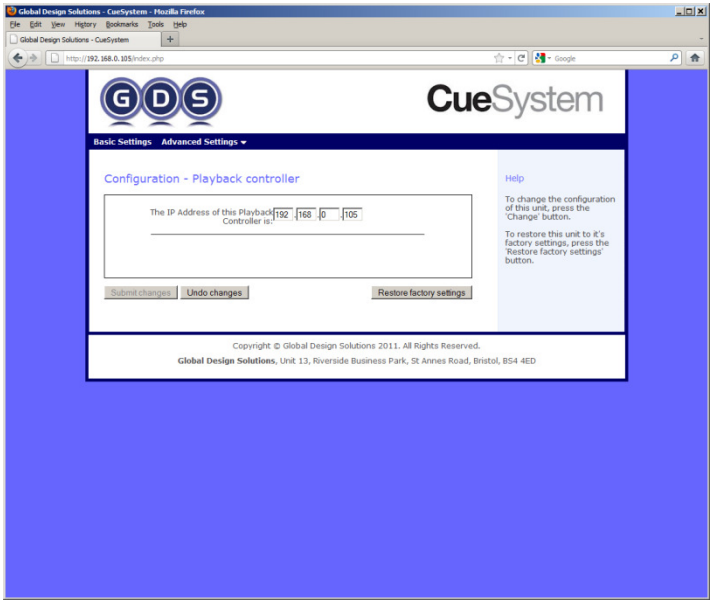
3 If you wish to specify a different master controller device, answer the series of questions to specify which device is the master controller for the system and to provide the IP address of this master controller. The master controller can be a playback controller, the current desk you are configuring or another desk.

You can click a different answer to any question at any time if you make a mistake.

4 When you are happy with the configuration settings click **Submit Changes**.

Playback controller configuration

To configure a playback controller, type its IP address (the default is 192.168.0.105) into your web browser's address bar then press Return. The 'Configuration –Playback Controller'screen opens.



To modify the playback controller's configuration (Basic Settings):

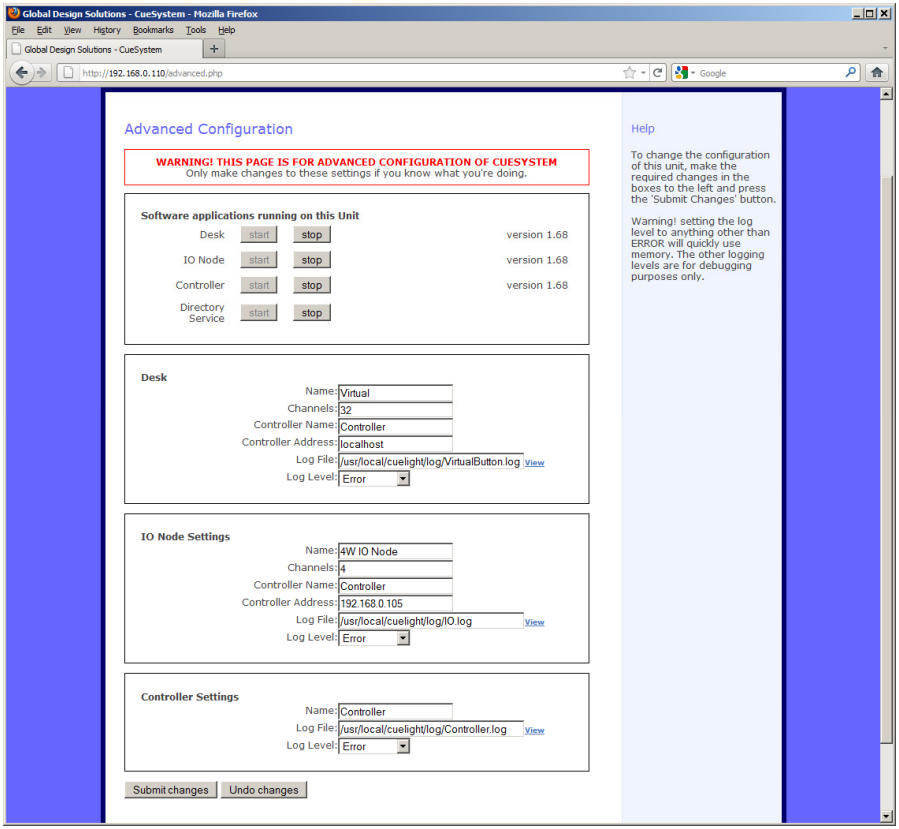
1. Click **Change**. The fields are un-greyed.
2. If required, you can edit the device's IP address.
3. Click **Submit Changes**.

Advanced settings

The Advanced Settings screens (there are three types: desk, I/O node, playback controller) contain various settings for advanced configuration, debugging, etc. This section provides an overview of what these settings are. For detailed information please contact GDS.

Advanced Configuration

To access this window for any given device, select **Advanced Settings >Advanced Configuration**. This is the window for an I/O node:



The various fields of the Advanced Configuration windows are now described.

Software applications running on the device
Each CueSystem TCP/IP hardware device has various software applications running on it. Using the **Start** and **Stop** buttons you can turn on/off these software applications, if required. The version number of the currently installed software application is shown on the right.

Name
The name for the real hardware device (that is, not a virtual device) that will be shown in the CueSystem TCP/IP software.

Channels
The number of channels the device supports.

Controller Name
This is an internal name used by the all CueSystem devices. This value must remain as Controller.

Controller Address
This is the IP address of the Master Controller. It may also be set to localhost if the Master Controller is running on this device.

Log File
The path to the log file. A log file is used for debugging the system. To view the log file click **View**.

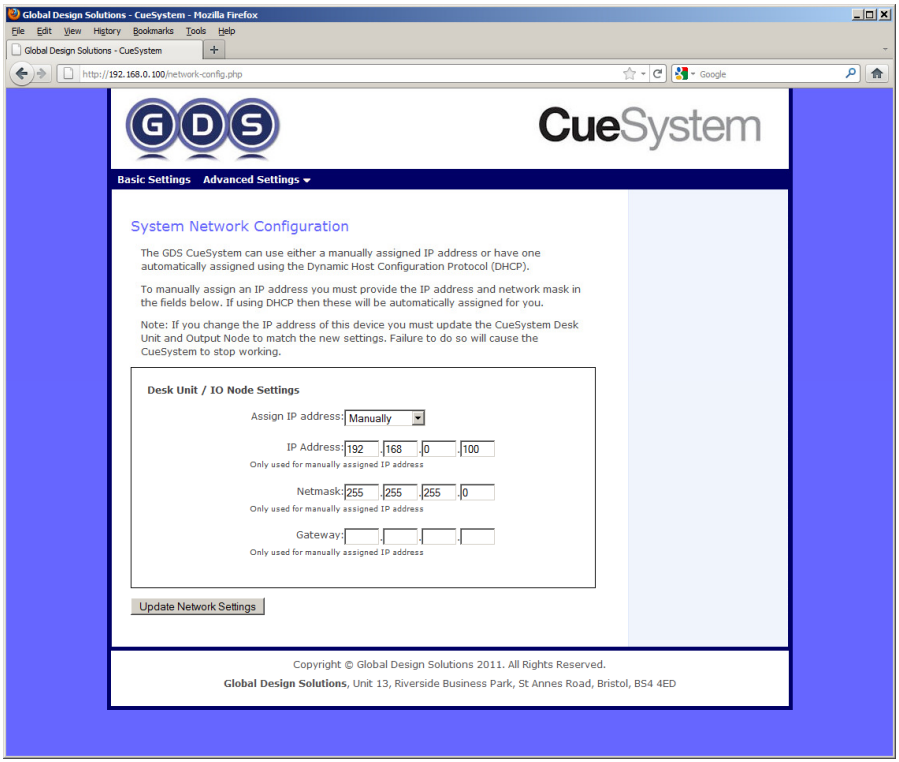
Log Level
The type of logging to use. In normal use this should be set to Error. **Note**: Setting the log level to anything other than ERROR uses a large amount of memory and will result in degraded performance. The other levels are for debugging purposes only.

Controller Settings
Here you can specify the name of the controller software application that is to be used by the master controller device (which could be a desk or a playback controller), the path to the log file for the master controller device and a log level (see above).

System Network Configuration

To access this window, select **Advanced Settings > Network Settings**.

This page allows you to specify the IP address for this device. The IP addresses entered here must be compatible with your network. Ask your network administrator for these details.



Software Update

To access this window, select **Advanced Settings >Software Update**.

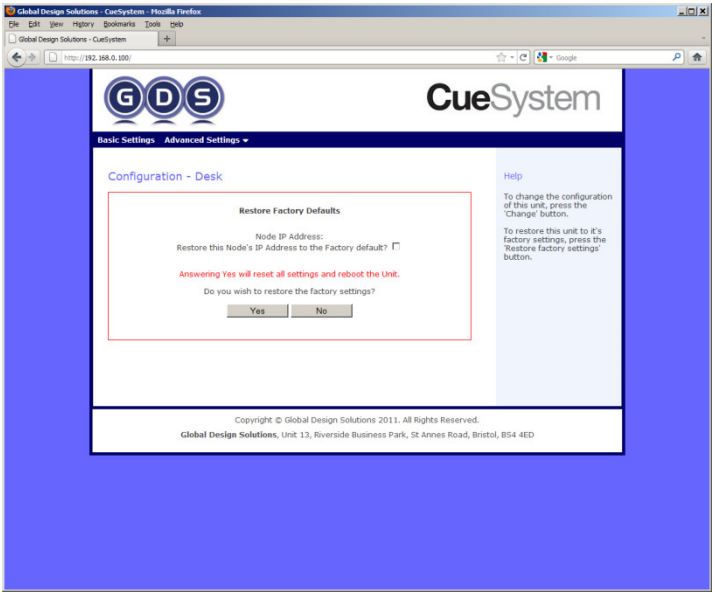
See page 37 for details on using this feature.

Restoring factory settings

If one of your devices stops working properly one feature that may fix the problem is the Restore Factory Settings feature.

To restore the factory settings of a device:

1 Click **Restore Factory Settings**. The Restore Factory Defaults screen opens.



2 To restore the device's default IP address tick the box; otherwise to keep the current address leave the box clear.

3 Click **Yes** and wait for the device to finish rebooting.

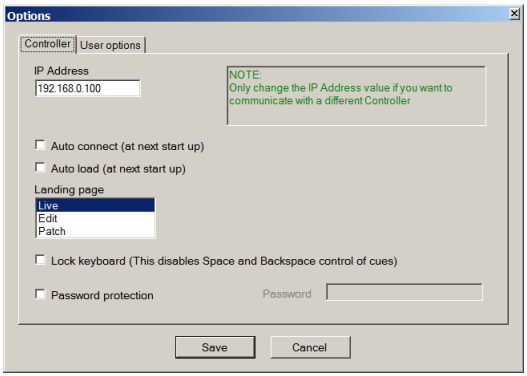
CHAPTER 8 User preferences

Various user preferences can be set in the Options window. To access this window select **File > Options**. The preferences are arranged on two tabs.

Controller options

The Controller options window contains various settings for the host controller.

To open the Controller options, select **File > Options**, then click the **Controller** tab.



The various settings are described in the table below. After making your selections click **Save** to save them.

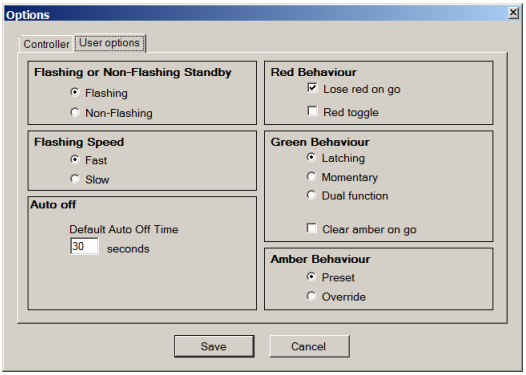
Field	Description
IP Address	IP address of the controller device. The default address is 192.168.0.100. Only change this value if you wish to communicate with a different master controller.
Auto connect (at next start up)	Tick this box to make CueSystem TCP/IP attempt to automatically connect to the last configured hardware on start up.
Auto load (at next start up)	Tick this box to make CueSystem TCP/IP load the last used show file on start up.

Field	Description
Landing Page	Specifies which screen to start in when the CueSystem TCP/IP application starts. *Live* Starts in the Live Cues screen (see page 21). *Edit* Starts in the Cue Editing screen (see page 17). *Patch* Starts in the Patch screen (see page 13).
Lock Keyboard	If ticked, in the Live Cues screen, prevents the use of the Spacebar and Backspace keys on your PC keyboard to cycle forwards and backwards through the current cues (the **GO!** and **Back** buttons on screen must be used instead).
Password Protection	Allows you to set a password which subsequently must be provided in order to gain access to editing functions of CueSystem TCP/IP. Users who do not have the password will only be able to play cues.

User options

The User options window contains various settings that allow you to choose how the system behaves according to your preferences.

To open the User options window, select **File > Options**, then click the User options tab.



The various settings are described in the table below. After making your selections click **Save** to save them.

Field	Description
Flashing or Non-Flashing Standby	Choose whether to have flashing or non-flashing standby cue lights.

Field	Description
Flashing Speed	Specify a fast or slow flashing speed (if you chose flashing cue lights above).
Default Auto Off	Specifies the default time period used when adding new cues.
Red Behaviour	*Lose red on go* Red light turns off if the green button is pushed. *Red toggle* Red light comes back on when the green light is turned off (for when the red light was on when the green button was pushed).
Green Behaviour	*Latching* Green light is turned on when the button is pushed, and remains on. *Momentary* Green light is turned on only for as long as the button is pushed and held. (Green light goes off when button is released.) *Dual function* Latching mode is enabled if button is pushed and immediately released; momentary mode is enabled if the button is pushed and held for a longer period of time (approximately one second). *Clear Amber on Go* If this setting is enabled, clears the amber preset light when the Go button is pushed. Otherwise, the amber light remains on when the Go button is pushed.
Amber Behaviour	*Preset* The 'clear preset' option allows you to either keep the preset button lit, or turn the preset button off after the green button has been pushed. This applies to all channels. *Override* In this mode, a lit amber button will prevent the PC Application from taking control of the channel. It can still be controlled manually from the hardware desk. When turned off the channel will resume the state of the cue.

CHAPTER 9 Advanced features

RS-232 control protocol

CueSystem can be controlled from an external system using RS-232.The control protocol has full control over the entire system. Anything that can be achieved manually, by pushing buttons on the desk can also be done over RS-232.Using RS-232 control does not inhibit manual operation of the desk. Both can be used simultaneously if required.

Physical connection

Connection to the system is via the RS-232 connector on the master device. Sending commands to a device other than the master will not work. The pin-out of this connector is as follows:

Pin	Function
2	Rx data
3	Tx data
5	GND

Serial settings

These are currently fixed and are not configurable. This may change in future firmware revisions.

Configure your host to use the following settings:

Baud rate	9,600
Data bits	8
Parity	None
Stop bits	1
Flow control	None

Protocol

All commands are encapsulated within curved brackets () and separated with a colon (:). Commands are executed when a carriage return is received. A command is composed of a number of parameters, each of which comprises an identifier and a value.

Command identifier	Description	Valid parameter range	Examples
U	Specifies the desk name of the unit the command is destined for. The name of the desk is case sensitive.	A string that matches an existent desk.	If the desk name is 'SM Desk', the valid command for U would be 'USM Desk'. 'USM DESK' would be treated as a non-existent desk and would return 'Err'.
C	Specifies the channel within the desk. Multiple channels can be stringed together with commas for simultaneous triggering.	1-96 and M M is used to control the Master Buttons.	C1 C2,3,4,24
S	Specifies the Standby function (RED buttons).	0 (off) 1 (on)	
P	Specifies the Preset function (YELLOW buttons).	0 (off) 1 (on)	
G	Specifies the Go function (GREEN buttons).	0 (off) 1 (on)	

Command examples

Command	Description
`(USM Desk:C2,5,8,10,24:S1)`	Puts channels 2, 5, 8, 10 and 24 in standby mode on the desk called 'SM Desk'.
`(USM Desk:CM:S1)`	Clears all RED standby channels currently active on the desk called 'SM Desk'.
`(UConsole:CM:G1)`	Executes a GO for all presets currently active on the desk called 'Console'.
`(UConsole:CM:G0)`	Clears all GREEN channels currently active on the desk called 'Console'.

Received commands

The Cuelight Controller responds to valid commands with 'Ack'. If an invalid command is received, or the desk name is invalid, CueSystem responds with 'Err'.

Firmware upgrade ('software update')

Firmware containing bug fixes and/or new features is made available from time to time.

To install the updated firmware on a hardware device (desk, I/O node or playback controller):

1 Have the firmware upgrade file on a USB memory device to hand.

2 Type the IP address of the device into a web browser's address bar then press Return. The Configuration settings interface for the device opens.

3 Select **Advanced Settings > Software Update**. The Software Update screen is displayed.

4 Insert the USB memory device into a USB port on the device.

5 Click **Perform Update** to update the firmware. Ensure that the device has finished updating before attempting to use the device. This may take a minute or two.

6 This process needs to be repeated for all devices.

Factory reset

If your system stops working properly for some reason, you can perform a factory reset of your host controller, which restores the controller to its default state (predefined IP settings, etc.). These default settings are held in a file which the hardware device reads from a USB memory device inserted into it.

To perform a factory reset:

1 Power off the controller.

2 Remove the network cable from the controller.

3 Insert the USB memory device that contains the settings file into the controller.

4 Power on the controller. The device reads the new information from the file and then reboots. While the controller reboots, a random arrangement of the cue lights on its front is displayed. Wait for it to finish rebooting; this takes around 20 seconds. When it has finished rebooting, all the lights on the front go off.

5 Remove the USB memory device.

6 Power off the controller.

7 Insert the network cable.

8 Power on the controller and wait for it to finish rebooting. The device is now ready to use.